

ASSOCIATION:

123 - 1 - 21.

PRESENTED BY:

SUBMITTED:

AVAILABLE:

Card 2/2

KHOKHLOV, V.D., inzhener.

Measuring tensions in the picking mechanism of a loom. Tekst.prom.  
16 no.6:41-42 Je '56. (MLRA 9:8)  
(Pickers (Weaving))

КНОКХЛОВ, В. Д.

PASHKOV, H.V.; KHOKHLOV, V.D.

The AFU-IMP automatic weft-straightening machine. Biul. tekhn.-ekon.  
inform. no.1:47-49 '57. (MIRA 11:4)

(Textile machinery)

**KHOKHLOV, V.D., inzhener.**

Automatically scheduled temperature control in dyeing silk fabrics.

Tekst.prom. 17 no.9:36-39 S '57.

(MIRA 10:11)

(Dyes and dyeing—Silk)

(Automatic control)

KHOKHLOV, V.D.

The EST-4 electronic stroboscopic tachometer. Biul. tekhn.-ekon.  
inform. no.8:52-53 '58. (MIRA 11:10)  
(Tachometer)

KHOKHLOV, V.D.; POLONIK, P.A.

High-frequency ionizers used for neutralizing static electricity  
charges. Biul.tekh.-ekon.inform. no.11:47-48 '58.

(MIRA 11:12)

(Ionization of gases) (Electrostatics)

KHOKHLOV, V.D., insh.

Small EST-4 electron stroboscopic tachometer. Tekst.prom. 18 no.10:  
52 0 '58. (MIRA 11:11)

(Textile machinery--Testing) (Tachometer)

POLONIK, P.A., inzh.; KHOKHLOV, V.D., inzh.

Instruments for measuring and neutralising charges of static  
electricity. Leg.prom. 18 no.12:32-35 D '58. (MIRA 11:12)  
(Electric meters)



KHOZHLOV, V.D.; FILIMONOV, A.P.

Instrument for measuring the velocity of the thread motion.

Tekst. prom. 20 no. 12:53-55 D '60.

(MIRA 13:12)

(Textile machinery--Testing)

VOL'SKIY, Vladimir Stepanovich; GORDON, Rhein Itskovich; KHOKHLOV, Y.S.,  
inzh., retsenzent; TSEYTS, I.M., retsenzent; DESYATKOV, M.I.,  
inzh., red.; DOBRITSINA, R., tekhn.red.

[Establishing enlarged norms for metal cutting; generalization  
of the practice in establishing enlarged norms] Ukrupnennoe  
tekhnicheskoe normirovanie stanochnykh rabot; obobshchenie  
opyta razrabotki ukрупnennykh normativov. Moskva, Mashgiz,  
1961. 206 p. (MIRA 14:12)  
(Factory management) (Metal cutting)

KHOKHLOV, V.D.

Ivan Vasil'evich Rusakov. Voen.-med. zhur. no.4:87 Ap '61.  
(MIRA 15:6)  
(RUSAKOV, IVAN VASIL'EVICH, 1877-1921)

PIPOV, A.A.; KHEKHLOV, V.D.

Scientific work organization. Stal' 25 no.12:1135-1138  
9 195. (MIRA 18:12)

1. Chelyabinskly metallurgicheskiy zavod.

ACC NR: AT7005808

(1,1)

SOURCE CODE: UR/0000/66/000/000/0090/0095

AUTHORS: Nikolayev, M. N.; Ignatov, A. A.; Khokhlov, V. F.; Shikhov, S. B.

ORG: none

TITLE: Method of subgroups and its application in the diffusion approximation

SOURCE: Moscow. Inzhenerno-fizicheskiy institut. Inzhenerno-fizicheskiye voprosy yadernykh reaktorov (Problems of nuclear reactor engineering and physics); sbornik statey. Moscow, Atomizdat, 1966, 90-95

TOPIC TAGS: transport equation, neutron diffusion, nuclear reactor, reactor neutron flux, neutron spectrum

ABSTRACT: The method of subgroups for solving the neutron transport equation with consideration of the energy dependence is discussed for the case when the structure of the neutron spectrum depends significantly on diffusion. Algorithms are given for calculating the distribution of subgroups in adjacent media, one of which has a resonance structure of the total cross section  $\Sigma_t(u)$ . The portion of the cross section curve containing the resonances where the average resonance parameters are approximately constant is separated out. The neutrons in the interval can be distributed into subgroups corresponding to the distribution of the magnitude of the total cross section. The diffusion equation for neutrons of subgroup k of the

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ACC NR: AT7005808

resonance medium is expressed in the form

$$\left. \begin{aligned} \frac{1}{r^2} \frac{dJ^k(r)}{dr} &= F^k(r) - \sum_i \Phi^k(r); \\ J^k(r) &= -r^2 D^k \frac{d\Phi^k(r)}{dr}; \end{aligned} \right\}$$

where the superscript k indicates quantities relating to the subgroup k, J is the neutron current,  $\Phi$  is the neutron flux, F is the subgroup sources including neutrons scattered into it and remaining in it, D is the diffusion constant, and  $\alpha$  is a parameter determined by the system geometry. Application of the method of subgroups to the region of high energies is also discussed. Orig. art. has: 15 equations.

SUB CODE: 18/2/SUBM DATE: none/ ORIG REF: 004/ OTH REF: 003

Card 2/2

*KHOKHLOV, V.G.*

**AUTHOR:** MILLER, V.YA., Prof., KHOKHLOV, V.G., cand. techn. science, PA - 2429  
BABUSHKIN, N.M., eng.  
**TITLE:** A.M. PARFENOV "Sintering of Iron Ores" ("Agglomeratsiya zheleznykh rud". Russian)(Moscow, published by Metallurgizdat, 1954, 312 pages, 108 illustrations)  
**PERIODICAL:** Stal', 1957, Vol 17, Nr 3, pp 286-288 (U.S.S.R.)  
Received: 5 / 1957 Reviewed: 6 / 1957

**ABSTRACT:** The book reviewed contains a schematical description of the various methods of fracturing, preparing the blast furnace burden for sintering, the fundamental principles of the sintering process with blowing-through of air, evaluation of the quality of products, technological schemes, and projecting of sintering plants as well as a description of the equipment of such a plant. The first chapters are of too general a nature, when dealing with the size of the lumps of ore the influence exercised by this factor on the metallurgical properties of the sintering product receives too little attention. The theory of agglomeration is not substantiated by any experimental data. The deficiencies of this book are due to the fact that research work carried out abroad and in the U.S.S.R. was not dealt with with sufficient thoroughness, so that the book does not come up to the level of the present stage of both theory and practice.

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PA - 2429

A.M. PARFENOV "Sintering of Iron Ores"

**ASSOCIATION:** URAL Institute for Iron Metals (Ural'skiy institut chernykh metallov)  
**PRESENTED BY:**  
**SUBMITTED:**  
**AVAILABLE:** Library of Congress

Card 2/2

S/193/61/000/002/005/009  
A005/A004

AUTHOR: Khokhlov, V.G.

TITLE: The State of Welding-Electrode Production

PERIODICAL: Byul. tekhn.-ekon. inform., 1961, No. 2, pp. 19 - 24

TEXT: In connection with the increase of manual electric arc welding with coated electrodes, it is planned to double the production of electrodes compared 1959. At present, 80% of the total amount of coated electrodes produced are used for welding of low-carbon and low-alloy steels, and 20% are intended for build-up welding and welding of high-alloy steels. All metallic electrodes for arc welding are subdivided by the standard specifications into the following classes depending on their purpose: electrodes for welding structural steels; for welding heat-resisting steels (GOST 9467-60); for welding high-alloy steels; electrodes for build-up operations. The Tsentral'nyy nauchno-issledovatel'skiy institut tekhnologii i mashinostroyeniya (TsNII TMASH) (Central Scientific Research Institute of Technology and Mechanical Engineering) will develop in 1961 new standards for electrodes for welding high-alloy steels and build-up welding. The specialized plants produce 10-40 t electrodes per shift. The welding wire is cut by automatic cutters ✓

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The State of Welding-Electrode Production

8/193/61/000/002/005/009  
A005/A004

with flying shears yielding 200 pieces per minute with the necessary straightness of the rods and good quality of cut. For cutting alloyed or carbon steels, guillotine machines are used which compensate the slip of wire by pulling rolls and ensure the uniformity of rod length. Rods with a slight rust coating are used without cleaning for electrodes with ore oxide coatings (UM-7, UM-7C, OMM-5 (TsM7, TsM-7S, OMM-5)). The known preparation methods are described for pulverizing, drying, and mixing the constituents of coating materials. The coatings are applied on automatic conveyer-lines. The pressure in the coating press amounts to 400-800 atm; the coating rate is about 800 pieces per minute. The most effective machines have hydraulic drive. The Opytnyy svarochnyy zavod Moskovskogo gorodskogo sovnarkhoza (Experimental Welding Plant of the Moscow Municipal Sovnarkhoz) has developed the OC3-3 (OSZ-3) device which makes it possible to determine the nonuniformity in coating thickness during the pressing process, which considerably increases the electrode quality. The average output of the OSZ-3 machine amounts to 7-8 t of electrodes 5 mm in diameter per shift. The coatings applied are dried in the air for 8 - 24 h and calcined in chamber or tunnel furnaces, or drying and calcination are combined in conveyer furnaces incorporated in the conveyer-line together with the coating machine. The furnaces developed by the Elektrodnyy zavod Ministerstva putey soobshcheniya (Electrode

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A005/A004

The State of Welding-Electrode Production

Plant of the Ministry of Transport) at Babushokhin have the optimum service qualities. The calcined electrodes go to the package section where the control of the coating strength and the calcination degree as well as the sampling for mechanical testing is effected. In the course of the Seven-Year-Plan several big electrode plants will be built with a yearly output of 60,000 t, and the industrial production of the fundamental equipment for electrode manufacturing will be increased: electrode coating presses with an output of 10 t per shift, electric conveyor furnaces for drying and calcining of electrodes, and straightening-cutting automatics. Many electrode grades will be replaced by improved ones: the widely used UMM-7, OMM-5, UONI-13 (TSM-7, OMM-5, UONI-13) electrodes containing large portions of ferromanganese and calcium fluoride will be replaced by other grades containing smaller quantities of harmful admixtures. Particularly, the electrode coatings on the rutile base will be developed. At present, the TsNIITMASH has developed the new TSM-9 electrode, and the Proyehtnyy institut Promstal'konstruktsiya Ministerstva stroitel'stva RSFSR (Design and Planning Institute of Industrial Steel Structure of the Ministry of Building of the RSFSR) has developed the MP-1 and MP-3 (MR-1 and MR-3) electrodes whose coatings are based on rutile. The Institut gigeny truda i profzabolevaniy Akademii meditsinskikh nauk SSSR (Institute of

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S/193/61/000/C02/C05/009  
A005/A004

## The State of Welding-Electrode Production

Labor Hygienics and Occupational Diseases of the Academy of Medical Sciences of the USSR) recommended these electrodes instead of the OMM-5 electrodes after sanitary-hygienic evaluation. - On the base of rutile and iron powder, electrodes for high-speed welding of low-carbon steels in deep-bottom position of the seam have been developed and introduced, which replace the TsM-7 and TsM-7S electrodes. The Opytnyy svarochnyy zavod (Experimental Welding Plant), the Proyektyny institut Promstal'konstruktsiya (Design and Planning Institute of Industrial Steel Structures), and the Institut elektrosvarki AN UkrSSR im. Ye.O. Paton (Institute of Electric Welding of the Academy of Sciences of the UkrSSR) and other enterprises and organizations carry out the development and introduction of these electrodes. Within the next years, the output of iron powder will be increased and that of electrodes with plastic coatings, which were developed by the Vsesoyuznyy Nauchno-issledovatel'skiy institut stroitel'stva truboprovodov (VNIIST) (All-Union Scientific Research Institute of the Construction of Pipelines). These electrodes practically do not moisten; the coating does not lose its strength and welding properties by long-time exposure to water, even without additional drying, which, in particular, is important for welding under field conditions and underwater welding. The institutions mentioned have developed also new electrodes with a gas-shielded cellulose coating which does not form slag. The Institut Metallurgii AN

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The State of Welding-Electrode Production

S/193/61/000/002/005/009  
A005/A004

SSSR im. Baykova (Institute of Metallurgy of the Academy of Sciences of the USSR im. Baykov) has developed electrodes with non-oxidizing coating. The "Chirchiksel'mash" Plant produces a conveyor furnace, where the electrodes are heated by infrared rays. In conclusion, the following problems are listed: development of new electrode grades, the application of new materials of lower toxicity, the development of new equipment and devices for the production of bundle and slag-free electrodes.

Card 5/5

KHOK HLOV, V.I.

5/069/69/000/004/006/017  
E071/EV33

AUTHORS: Lavchenko, D.M.; Budyshchev, A.D.; Kulyayeva, A.I.  
TITLE: De-emulsifying Agents for Petroleum Emulsions  
De-emulsifying Agents for Petroleum Emulsions

PERIODICAL: Khimiya i tekhnologiya toplykh masel, 1960, No. 4,  
pp. 26-29

TEXT: Results of synthesis and testing of non-ionic surface-active substances (de-emulsifying agents) from fractions of allylphenols, obtained as a by-product in the production of an antioxidant, additive 2,6-di-tert-butylp-cresol (DBPC) are given. As a by-product of the synthesis of DBPC, a fraction (136 to 152°C) material for the synthesis of allylphenols of DBPC and their mixture (20 mm Hg) and residue from the production of allylphenols obtained were tested in some detail. Specimens of de-emulsifying agents and surface tensile petroleum emulsions as well as the duration of emulsification were tested (Fig. 1). By varying the duration of emulsification process products containing various numbers of oxyethylene groups were obtained. It was found

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that compounds containing less than 10 groups of oxyethylene were not completely soluble in water, while compounds containing larger proportions of these groups were well soluble. The surface tension of compounds containing from 10 to 32 groups varied little, but it was particularly at low concentrations. With increasing number of oxyethylene groups, the surface active properties of the compounds containing less than 25 to 30 of oxyethylene groups. The latter type of compounds was used in the synthesis of de-emulsifying agents. The results of the tests showed that the de-emulsifying activity was comparable with other reagents. The consumption of the de-emulsification of Bakhran crude amounts to 0.001% and on thermodynamic stability of the products obtained during the production of 1 table and 6 Soviet references. There are 2 figures.

ASSOCIATION: VNI NI  
Card 2/2

KHOKHLOV, V. K.

95

S/089/62/013/006/019/027  
B102/B186

AUTHORS: C. T. and M. R.

TITLE: Nauchnaya konferentsiya Moskovskogo inzhenerno-fizicheskogo instituta (Scientific Conference of the Moscow Engineering Physics Institute) 1962

PERIODICAL: Atomnaya energiya, v. 13, no. 6, 1962, 603 - 606

TEXT: The annual conference took place in May 1962 with more than 400 delegates participating. A review is given of these lectures that are assumed to be of interest for the readers of Atomnaya energiya. They are following: A. I. Leypunskiy, future of fast reactors; A. A. Vasil'yev, design of accelerators for superhigh energies; I. Ya. Pomeranchuk, analyticity, unitarity, and asymptotic behavior of strong interactions at high energies; A. B. Migdal, phenomenological theory for the many-body problem; Yu. D. Fivyskiy, deceleration of medium-energy antiprotons in matter; Yu. M. Kogan, Ya. A. Iosilevskiy, theory of the Mössbauer effect; M. I. Rysanov, theory of ionization losses in nonhomogeneous medium; Yu. B. Ivanov, A. A. Rukhadse, h-f conductivity of subcritical plasma;

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Nauchnaya konferentsiya...

B/089/62/013/006/019/027  
B102/B186

design of 30-Mev electron linear accelerator; Ye. O. Pyatrov, A. A. Olashov,  
V. G. Lopato, A. I. Finogenov, G. M. Shepskiy, V. D. Selesnev, experimental  
characteristics of low-energy electron linear accelerators; G. A. Zeytlenk,  
V. M. Levin, S. I. Piskunov, V. L. Smirnov, V. K. Khokhlov, radiocircuit  
parameters of JYB (LUE)-type accelerators; G. A. Tyagunov, O. A. Val'dner,  
B. M. Gokhberg, S. I. Korshunov, V. I. Kotov, Ye. M. Moroz, accelerator  
classification and terminology; O. S. Milovanov, V. B. Varaksin, P. R.  
Zenkevich, theoretical analysis of magnetron operation; A. G. Tragov,  
P. R. Zenkevich, calculation of attenuation in a diaphragmated waveguide;  
Yu. P. Lazarenko, A. V. Ryabtsev, optimum attenuation length for linear  
accelerator; A. A. Zhigarev, R. Ye. Yeliseyev, review on trajectographs;  
I. G. Morozova, G. A. Tyagunov, review on more than 500 ion sources;  
M. A. Abroyan, V. L. Komarov, duoplasmatron-type source; V. S. Kusnetsov,  
A. I. Solnyshkov, calculation and production of intense ion beams;  
V. M. Rybin (Ye. V. Armenskiy), inductive current transmitters of high  
sensitivity; V. I. Korosa, G. A. Tyagunov, kinetic description of linear  
acceleration of relativistic electrons; A. D. Vlasov, phase oscillations  
in linear accelerators; E. L. Burshtayn, G. V. Voskresenskiy, beam field  
effects in the waveguide of an electron linear accelerator; R. S. Bobovikov,

Card 3/4

KHOKHLOV, V.K., inzh.

Attaching slurry concentrators to rotary kilns. Nauch.sooob.NIITSementa  
no.8:1-7 '60. (MIRA 14:5)

(Kilns, Rotary)



KHOKHLOV, V.K., inzh.; KROYCHUK, L.A., inzh.

Ways of improving the slag feeders. Nauch. soob NIITsmenta no.9:  
6-E '60. (MIRA 14:5)  
(Cement kilns)

KHOKHLOV, V.K., inzh.; MYAGKOV, A.Ye., inzh.

New design for cyclone heat exchangers. Nauch. soob. NIITsmenta  
no.11:9-11 '61. (MIRA 15:2)

(Heat exchangers)

DESHKO, Yu.I.; KREYMER, M.B.; OGARKOVA, T.A.; KHOKHLOV, V.K., inzh.,  
nauchnyy red.; CHERKINSKAYA, R.L., red. izd-va; MOCHALINA, Z.S.,  
tekhn. red.

[Adjustments and heat-engineering tests of rotary kilns at cement  
plants] Naladka i teplotekhnicheskie ispytaniya vrashchayushchikh-  
sia pechei na tsementnykh zavodakh. Moskva, Gosstroizdat, 1962.  
242 p. (MIRA 16:1)

(Kilns, Rotary)

GOFMAN, G.M.; KHOKHLOV, V.K.

Choosing the control point for the temperature of the material  
in a kiln. TSement 28 no.3:9 My-Je '62. (MIRA 15:7)

1. Gosudarstvennyy vsesoyuznyy nauchno-issledovatel'skiy  
institut tsementnoy promyshlennosti.  
(Temperature regulators)  
(Kilns, Rotary)

VOROB'YEV, Kharlampiy Sergeyevich; MAZUROV, Dmitriy Yakovlevich;  
Khokhlov, V.K., retsenzent; KHRUSTALEVA, N.I., red.;  
YEZHOVA, L.L., tekhn. red.

[Heat-engineering calculations for cement kilns and instruments]  
Teplotekhnicheskie raschety tsementnykh pechel i apparatov. Mo-  
skva, Vysshaya shkola, 1962. 349 p. (MIRA 16:4)

1. Rukovoditel' laboratorii obzhiga Vsesoyuznogo nauchno-  
issledovatel'skogo instituta tsementnoy promyshlennosti (for  
Khokhlov).

(Cement industries--Equipment and supplies)

BANIT, F.G.; GERSHMAN, M.I.; LEONTENKOV, A.I.; OLEYNIKOVA, N.I.;  
PERTSIK, N.G.; PIROTSKIY, V.Z.; SLIVITSKAYA, F.R.;  
KHOKHLOV, V.K.; ASTANSKIY, L.Yu., nauchn. red.; TYUTYUNIK,  
M.S., red.izd-va; BRUSINA, L.N., tekhn. red.

[Cement industry; its present status and prospects for development] TSementnaya promyshlennost'; sostoyanie i perspektivy razvitiya. [By] F.G.Banit i dr. Moskva, Gosstroizdat, 1963. 258 p. (MIRA 16:12)

(Cement industries)

EL'PERIN, I. T.; KHOKHLOV, V. K.

"High-temperature thermal processing of material in cascade equipment with a surging fluidized bed,"

report submitted for 2nd All-Union Conf on Heat & Mass Transfer, Minsk, 4-12 May 1964.

Inst of Heat & Mass Transfer, AS BSSR, All-Union Sci Res Inst of Cement.

KHOKHLOV, V.K.; PRUDNIKOV, I.A.; V'YALITSYN, V.A.; NADYBIN, A.I.

Experimental testing of a model of the bunching section of a  
50 Mev. linear electron accelerator. Elektrofiz. . app.  
no.2:104-114 '64. (MIRA 18:3)



L 46163-65 EWT(m)/EPA(w)-2/EWA(m)-2 Pt-7/Pab-10 IJP(c) OS

ACCESSION NR: AT5007930

S/0000/64/000/000/0420/0424 57  
48

AUTHOR: Val'ter, A. K.; Grishayev, I. S.; Yerenenko, Ye. V.; Kondratenko, V. V.;  
Zeytlenok, G. A.; Kuznetsov, G. F.; Levin, V. M.; Malyshev, I. F.; Romyantsev,  
V. V.; Semenov, A. N.; Turkin, F. F.; Khokhlov, V. K.

TITLE: Linear traveling-wave accelerator of electrons with output energy 2 Gev

SOURCE: International Conference on High Energy Accelerators. Dubna, 1963.  
Trudy. Moscow, Atomizdat, 1964, 420-424

TOPIC TAGS: high energy accelerator, traveling wave electron accelerator, klystron

ABSTRACT: The accelerator consists of an injector and 49 accelerating sections each 4.5 meters long. The accelerator operates with a traveling  $1/2\pi$ -wave with constant phase velocity equal to the velocity of light  $c$  and group velocity equal to 0.04c. The operating frequency of the accelerator is 2797 mc for a temperature of the accelerating section equal to 37°C. The energy of the accelerated electron beam is 2 Gev, the mean current is 1.2  $\mu$ amp for a transmission frequency of 50 times per second and duration of the high-frequency pulse of  $\tau = 2$  msec. The high-frequency power supply for each section is independent of the klystron amplifier. The exci-

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ACCESSION NR: AT5007930

tation of the klystrons is carried out from a common wave-guide line, which is supplied from a high power klystron excited by a regulated master oscillator. The group velocity of the electromagnetic wave in the excitation line is equal to about 0.805 c. The constant phase of the electromagnetic wave at klystron output is maintained by a phasing system with an accuracy of  $\Delta\phi = \pm 2^\circ$ . The accelerating sections are installed in a special bunker which has a concrete wall-like shield and is covered on top by sectional reinforced-concrete slabs. The output installation is shielded by a special earthen enclosure covered by reinforced-concrete slabs. Purification of the beam from harmful admixtures is carried out by means of a magnetic parallel transfer system and magnetic separators. The present report discusses the parameters of the main units, such as: the injector, the vacuum system ( $2 \cdot 10^{-6}$  mm/Hg), the accelerator's high-frequency pulsed power supply, the output installation, the formation and measurement of the beam, the control of the accelerator. It is planned to store the electrons and positrons which are obtained by the present accelerator in a suitable ring, but experience must first be gained with small storage rings and colliding beams, under study at the Physico-technical Institute, Academy of Sciences, Ukrainian SSR. The present accelerator was constructed in accordance with the principle of uniform structure, but not constant field. The entire adjustment phase of the large accelerator's operation is carried

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ACCESSION NR: AT5007930

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out by means of one injector. "The design and parameters of the one injector was the concern of V. A. Vishnyakov and associates." Orig. art. has: 5 figures, 1 table.

ASSOCIATION: Fiziko-tehnicheskiy institut AN UkrSSR (Physico-technical Institute, AN UkrSSR); Nauchno-issledovatel'skiy institut elektro-fizicheskoy apparatury imeni D. V. Yefremova GKAE SSSR (Scientific-research Institute of Electro-Physical Equipment GKAE SSSR)

SUBMITTED: 26May64

ENCL: 00

SUB CODE: NP

NO REF SOV: 000

OTHER: 000

Card 3/3 DW

4c

L 45257-65 EWA w)-2/ENT(m)/EWA(m)-2 Pt-7/Pab-10 IJP(c) G8  
 ACCESSION NR: AT5007932 S/0000/64/000/000/0435/0439  
 AUTHOR: Val'ter, A. K.; Grishayev, I. A.; Den'yamenko, G. K.; Zykov, A. I.;  
 Zeytlenok, G. A.; Malyshov, I. F.; Turkin, F. F.; Khokhlov, V. K.; Makhnanko, L. A.  
 TITLE: Linear traveling-wave electron accelerator with 360-Mev output energy  
 SOURCE: International Conference on High Energy Accelerators. Dubna, 1963.  
 Trudy. Moscow, Atomizdat, 1964, 435-439  
 TOPIC TAGS: high energy accelerator, traveling wave electron accelerator, injector, waveguide  
 ABSTRACT: One of the stages in the development, at Khar'kov, of the linear electron accelerators was the construction of a 360-Mev accelerator, with accelerating track divided into 11 sections consisting of a short injector and 10 sections 4.5 meters each. During colliding beam experiments the sixth section is absent, in its place being the magnets of the injecting devices of the storage rings. The electron injector and the accelerating sections are located in a concrete bunker. Klystrons with nominal power of 20 Mw in the pulse are used for the high-frequency power supply. Capacitive energy storers are used in the klystron modulators with hydro-  
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gen pulse thyatron switching. A generator-amplifier having metal-ceramic triodes with quartz frequency stabilization of the master circuit is used for excitation of the klystrons. The generator signal is amplified by a separate klystron and is propagated along waveguide transmission lines by the accelerator, entering into the klystrons of the above-mentioned injector and ten accelerating sections. The power at the output of the accelerating sections is absorbed in carborundum chargers. The vacuum in the accelerator and in the high power waveguide lines is attained by means of ion-absorption pumps, which are set up at the inputs of the sections and near the vacuum-separator cones. Ridding the electron beam of secondary products and focusing at the target are carried out with two reversible magnets and five quadrupole lenses. A transformer complex and direct-current sources are used for the system's regulated power supply. The high-frequency power supply system, which consists of klystron amplifiers, waveguide and co-axial transmission lines, and automatic phasing system, and also the control, locking, and signal panels are placed in a special room. The rated accelerator parameters are: 360-Mev electron energy at spectrum maximum; 5% half-width of energy spectrum  $\Delta W/W$ ; 1 uamp full acceleration current at output of parallel-transfer system (mean) for 5% half-width and  $N = 50/\text{sec}$ ; 0.2 cm beam diameter at output of parallel-transfer system; 1.5  $\mu\text{sec}$  current pulse; frequency (number per second  $N$ ) of bunches of current pulses - 50,

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L 45257-65

ACCESSION NR: AT5007932

2

25, 12.5, 6.25, 3.125, 1, and a single absence. (Note. The half-width is the width of the energy spectrum at a level half the current maximum.) The design and construction of the electron injector and the remaining parameters of the accelerated beam were discussed by V. A. Vishnyakov et al. (same conference p. 440). The present report discusses matters relating to the adjustment of the accelerator: the system's electrodynamic and loaded characteristics, the accuracy of construction of the sections, their resonance frequencies, group velocity and damping, shunt resistance and partial power of the principal accelerating harmonic. Orig. art. has: 6 figures.

ASSOCIATION: Fiziko-tekhnicheskiy institut AN UkrSSR (Physico-technical Institute, AN UkrSSR); Nauchno-issledovatel'skiy institut elektro-fizicheskoy apparatury imeni D. V. Yefremova GKAE SSSR (Scientific-Research Institute of Electrophysical Equipment GKAE SSSR)

SUBMITTED: 26May64

ENCL: 00

SUB CODE: EE, NP

NO REF SOV: 000

OTHER: 000

Cord 3/3

KRAMCHENKO, I.V., doklady tekhn. nauk; BAIET, E.O., inzh. zhurn. nauki;  
KHOENELCV, V.K., inzh.; BATRAKOVA, G.S., inzh.

Specific features in the preparation of a raw material batch in  
a kiln with a cyclone heat exchanger. (Sement 31 no.3:27-42. Kr-  
Ap '65. (NRA 13:8)

1. Vsesoyuznyy gosudarstvennyy nauchno-issledovatel'skiy in-  
stitut tsementnoy promyshlennosti.

L 009h1-66 ENT(m)/EPA(w)-2/EWA(m)-2 IJP(o)

ACCESSION NR: AT5015936

UR/3092/65/000/003/0037/0045

AUTHOR: V'yalitsyn, V. A.; Nadybin, A. I.; Prudnikov, I. A.; Ryabtsov, A. V.;  
Smirnov, V. L.; Khokhlov, V. K.

TITLE: Investigation of the accelerating system of a 5-Mev linear accelerator

SOURCE: Moscow. Nauchno-issledovatel'skiy institut elektrofizicheskoy  
apparatury. Elektrofizicheskaya apparatura; sbornik statey, no. 3, 1965, 37-45

TOPIC TAGS: electron accelerator, 5 Mev linear accelerator

ABSTRACT: The results of testing an experimental model of the 5-Mev linear electron accelerator which is intended for beta and gamma therapy are reported. The accelerating system is made in the form of a 2338.3-mm long septate waveguide operating at  $\pi/2$  mode. The initial 767-mm long section of the waveguide has variable dimensions so that the phase velocity and field-strength amplitude can be continuously varied to ensure a high capture coefficient. These measured

Card 1/2



L 00941-66

ACCESSION NR: AT5015936

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characteristics are presented: energy and accelerated-beam energy-spectrum width vs. frequency (maximum energy, around 2798.6 Mc); ratio of accelerated-particle current to injection current (capture) vs. frequency (80% corresponds to about 2800 Mc); energy, energy-spectrum width and capture vs. r-f power; same quantities vs. injection current; energy and energy-spectrum width vs. injection current; energy and energy-spectrum width vs. injection voltage. The energy spread of electrons at the spectrum half-height is  $\pm 5\%$  or less; the average current of accelerated electrons, 70  $\mu$ A. Orig. art. has: 10 figures and 1 formula.

ASSOCIATION: none

SUBMITTED: 00

ENCL: 00

SUB CODE: NP

NO REF SOV: 002

OTHER: 000

Card 2/2 *SP*

TEREMETSKIY, Konstantin Nikolayevich; KHOKHLOV, V.K., inzh.,  
nauchn. red.

[Designing cement and asbestos cement plants] Proektiro-  
vanie tsementnykh i asbestotsementnykh zavodov. Moskva,  
Stroizdat, 1964. 149 p. (MIRA 18:1)

*KHOKHLOV, V. K.*

09-4-5-6/26

AUTHORS: Zeytlenok, G. A., Rumyantsev, V. V., Smirnov, V. L.,  
Fomin, L. P., Khokhlov, V. K., Grishayev, I. A.,  
Zeydlits, P. M.

TITLE: Principles of the Selection of the **Basic** Parameters of a  
Linear Accelerator **of** Electrons to High Energy (Osnovaniya  
dlya vybora osnovnykh parametrov lineynykh uskoriteley  
elektronov na bol'shiye energii)

PERIODICAL: Atomnaya Energiya, 1958, Vol. 4, Nr 5,  
pp. 448 - 454 (USSR)

ABSTRACT: By a comparative analysis the dependence of the accelerator  
length, the number of sections, the input power, the con-  
struction costs, and the possibilities of use on the value  
of the electric field strength in the axis of the waveguide  
are shown. The section of the waveguide in this case is fed  
independently by a high-frequency generator.  
The minimum of the construction cost and of the possibilities  
of use is not determined by the final energy of the electrons.

Card 1/3

89-4-5-6/26

Principles of the Selection of the Chief Parameters of a Linear Accelerator  
for Electrons of High Energy

There is no relation between these points. It could be shown that for the feeding of the accelerator sections a high-frequency generator with a power of more than 20 MW is best suited. The problem of the increase of the duration of the useful part of the high-frequency impulse is ventilated. If a rectangular waveguide is used, the duration of the impulse at the input of the excitation line must be increased by the amount of  $L/V_{\text{limit}} - L/C$ . In this case it is as well necessary that the high-frequency impulse reaches the amplifying klystron of the first section with a deceleration of the same amount. For that purpose a special synchronizing scheme is needed which simultaneously transfers the phase shift to the other sections. The relation between the duration of the useful part of the impulse and the total duration of the impulse is independent of the final energy of the accelerated electrons. There are 13 figures, 1 table and 2 references, 1 of which is Soviet.

Card 2/3

09-4-5-6/26

Principles of the Selection of the Chief Parameters of a Linear Accelerator  
of Electrons to High Energy

SUBMITTED: May 14, 1957

AVAILABLE: Library of Congress

1. Electron accelerators--Design

Card 3/3

KHOKHLOV, Viktor Konstantinovich; PROTSENKO, E., red.; MUKHIN, Yu., tekhn.  
red.

Annushka. Moskva, Gos. izd-vo polit. lit-ry, 1961. 35 p.  
(MIRA 14:7)

(Kostroma Province—Dairying)

KHOKHLOV, V.Kh.

Possibilities for making the construction of 400-500 kv. electric overhead lines less expensive. Nauch.dokl.vys.shkoly; energ. no.3:99-108 '58. (MIRA 12:1)

1. Rekomendovano kafedroy ekonomiki promyshlennosti i organizatsii predpriyatiya Moskovskogo energeticheskogo instituta. (Electric lines--Overhead)

KHOKHLOV, V.Kh., dotsent

Problems concerning the determination of the production costs and economic efficiency of transmitting electric power by long-distance a.c. power transmission lines. Izv. vys. ucheb. zav.; energ. 4 no.8:47-55 Ag '61. (MIRA 14:8)

1. Moskovskiy ordena Lenina energeticheskiy institut.  
Predstavlena kafedroy ekonomiki promyshlennosti i organizatsii predpriyatiy.

(Electric power distribution—Alternating current)



KHOKHLOV, V.Kh., dotsent

Letter to the editor. Izv. vys. ucheb. zav.; energ. 5 no.7:  
121-122 J1 '62. (MIRA 15:7)  
(Electric power distribution) (Electric lines--Overhead)

KHOKHLOV, Vikentiy Khokhlov; AYZERMAN, M.A., doktor tekhn. nauk,  
otv. red.; KLIMOV, V.A., red. izd-va; DOROKHINA, I.N.,  
tekhn. red.

[Hydraulic power amplifiers] Gidravlicheskie usiliteli  
moshchnosti. Izd.2., perer. i dop. Moskva, Izd-vo AN SSSR,  
1963. 101 p. (MIRA 16:7)  
(Oil hydraulic machinery) (Automatic control)

S/275/63/000/002/004/032  
D405/D301

AUTHORS: Levin, V.M., Khokhlov, V.K., Semenov, A.N., Rumyantsev, V.V., Stepanov, S.M., Suslenko, V.K., Pomin, L.P., Shikhov, V.Ya. and Chubinskaya, I.L.

TITLE: Linear 5-35 Mev electron accelerator with X-ray head for medical purposes

PERIODICAL: Referativnyy zhurnal, Elektronika i ee primeneniye, no. 2, 1963, 46, abstract 2A269 (Elektron. uskori-teli, Tomsk, Tomskiy un-t, 1961, 10-15 (Collection))

TEXT: A pulsed accelerator is described. The frequency of the microwave field is about 2800 Mc; the electron energy can smoothly vary from 3 to 35 Mev; the mean electron current in the entire range can be brought to 18 microampere. The technical characteristics and the design of the accelerator are described. The accelerating system, the microwave supply, the vacuum system and the X-ray head device are considered in detail. All the accelerator elements were tested on laboratory stands and the working drawings

Card 1/2

Linear 5-35 Mev electron ...

S/275/63/000/002/004/032  
D405/D301

for the entire equipment were given over to a plant for serial  
production.

[Abstracter's note: Complete translation]

Card 2/2

KHOKHLOV, V.P.; LANGE, V.I., redaktor; MEL'NIKOVA, N.V., tekhnicheskii  
redaktor.

[Brief manual of a furniture maker] Kratkii spravochnik mebel'shchika.  
Moskva, Gos. izd-vo mestnoi i toplivnoi promyshlennosti RSFSR, 1954.  
317 p. (MLRA 8:2)  
(Furniture industry)

MOSKALEVA, L.A., inzh.; RYZHOV, A.I., inzh.; STEPANOV, S.M., inzh.;  
TIMOFEYEV, V.A., inzh.; KHOKHELOV, V.P., inzh.

Project for the over-all mechanization and automatization of furniture manufacture at the Moscow Furniture Assembly Combine No.2.  
Der.prom. 9 no.10:3-6 0 '60. (MIRA 13:10)

(Moscow--Furniture industry) (Assembly-line methods)

L 657h-66 ENT(1)/EWA(h)/ETC(m) WW

ACC NR: AP5025050

SOURCE CODE: UR/0286/65/000/016/0091/0091

AUTHORS: Viktorov, V. A.; Petrov, B. N.; Abramov, A. S.; Maslov, G. S.;  
Khokhlov, V. P.; Samsonov, G. A.

ORG: none

TITLE: Resonance level gauge. Class 42, No. 173971

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 16, 1965, 91

TOPIC TAGS: liquid level indicator, resonator, *HF oscillator*, *electronic circuit*

ABSTRACT: This Author Certificate presents a resonance level gauge containing a high frequency oscillator for exciting a resonance detector with a step frequency characteristic and a frequency modulator for periodic variation of the oscillator frequency in the range of the level variation. To increase the accuracy of discrete measurement of the liquid level<sup>25</sup> at given points, the device is provided with tank circuits excited by the oscillator at the same time with the detector. The tank circuits are tuned to the frequencies determined by the given values of the measured level. With the coincidence of the resonance frequency of the detector and the resonance frequency of the corresponding tank circuit, the signal

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UDC: 681.128.82

L 6574-66

ACC NR: AP5025050

from the tank circuit is fed in parallel with the detector signal to the inputs of coincidence circuits which are connected to the signal device (see Fig. 1).

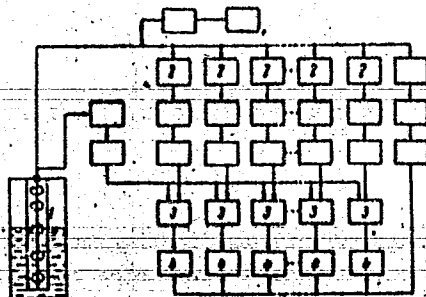


Fig. 1. 1- detector; 2- tank circuits; 3- coincidence circuits;  
4- signal device

Orig. art. has: 1 diagram.

SUB CODE: EC/ SUBM DATE: 28Mar64

Card 2/2



L 7639-66 EWT(1)/EWA(h)/ETC(m) WW

ACC NR: AP5025053

SOURCE CODE: UR/0286/65/000/016/0092/0092

AUTHORS: Viktorov, V. A.; Petrov, B. N.; Abramov, A. S.; Maslov, G. S.;  
Khokhlov, V. P.; Samsonov, G. A.

ORG: none

TITLE: Resonance level gauge. Class 42, No. 173974

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 16, 1965, 92

TOPIC TAGS: liquid level indicator, resonator, *electronic circuit, electronic oscillator*

ABSTRACT: This Author Certificate presents a resonance level gauge containing a frequency-modulated oscillator for exciting the resonance detector and tank circuits tuned to the frequencies corresponding to the discrete values of the measured level divided in height at equal intervals. To increase the accuracy of digital level measurement, with nonlinear variation of the detector and oscillator output characteristics, the gauge is provided with a device in the form of trigger counters. These counters determine the number of scale pulses from the tank circuits given off with the coincidence of the oscillator frequency and the resonance frequency of the corresponding tank circuit until the appearance of the detector

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UDC: 681.128.82

L 7639-66

ACC NR: AP5025053

pulse. The gauge is also provided with a device for determining the time lag of the detector pulse relative to the immediately preceding scale pulse. These devices are connected through controllable logic switch elements respectively to the output of the tank circuits and to the output of the clock oscillator (see Fig. 1).

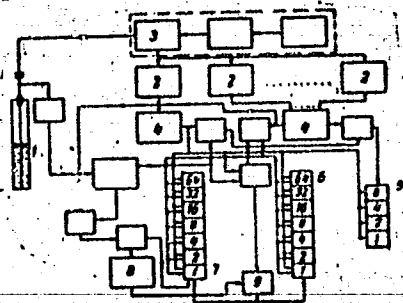


Fig. 1. 1- detector; 2- tank circuits; 3- frequency-modulated oscillator; 4- scale pulse counter; 5- counter for time lag of detector pulse relative to immediately preceding scale pulse; 6- logic elements; 7- switches; 8- clock oscillator; 9- counter for determining time interval between two scale pulses

To increase the accuracy of measurements, the gauge is provided with a device for determining the time interval between scale pulses. The device is in the form of a trigger counter connected to the clock oscillator by two electric channels with switches. One of the switches is controlled by the logic elements. The

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L 7639-66

ACC NR: AP5025053

other is opened by the detector pulse and is closed by the immediately following scale pulse. Orig. art. has: 1 diagram.

SUB CODE: EC/ SUBM DATE: 28Mar64

Card

3/3

KHOKHLOV, V.R.

SOV/137-58-8-16678

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 8, p 63 (USSR)

AUTHOR: Khokhlov, V.R.

TITLE: Composition and Behavior of a Copper-cyanide Complex in the Cyanidation Process (Sostav i povedeniye mednotsianistogo kompleksa v protsesse tsianirovaniya)

PERIODICAL: Tr. Irkutskogo gornometallurg. in-ta, 1956, Nr 11, pp 102-126

ABSTRACT: A study is made of the effect of a copper-cyanide complex upon the dissolution rate (DR) of chemically pure Au and an alloy thereof with Ag at various strengths of the cyanide solution and various molecular ratios of Na and Cu cyanides. It is found that the maximum DR is attained for Au in solutions containing 0.05% Na cyanide, and for the alloy (15% Ag) when the cyanide content of the solution is 0.1%. When the solution contains the Cu complex, the DR rises with increase in the cyanide-to-Cu molecular ratio to 4 and declines at higher Cu contents. Under these conditions the DR of Au is greater than that of the alloy. It is noted that in determination of free cyanide,  $\text{AgNO}_3$  titrates as much as 10% cyanide, combined in the complex  $\text{Na}_2\text{Cu}(\text{CN})_3$

Card 1/2

SOV/137-58-8-16678

Composition and Behavior of a Copper-cyanide Complex (cont.)

even in the presence of an indicator. Changes in the method of titration are recommended. Bibliography: 21 references.

L.P.

1. Gold--Solubility
  2. Gold-silver alloys--Solubility
  3. Copper-cyanide compounds
- Properties

Card 2/2

PLAKSIN, Igor' Nikolayevich; KAKOVSKIY, I.A., prof.doktor, retsenzent;  
KHOKHLOV, V.R., kand.tekhn.nauk, retsenzent; SKOBEYEV, I.K.,  
prof. doktor, retsenzent; VRSSONOV, S.V., prof., doktor tekhn.  
nauk, retsenzent; MARENKOV, Ye.A., red.; EL'KIND, L.M., red.  
izd-va; VAYNSHTEYN, Ye.B., tekhn.red.

[Metallurgy of precious metals] Metallurgiya blagorodnykh metallov.  
Moskva, Gos.nauchno-tekhn.izd-vo lit-ry po cherno i tsvetnoi metal-  
lurgii, 1958. 366 p. (MIRA 11:7)

1. Chlen-korrespondent Akademii nauk SSSR (for Plaksin). 2.  
Irkutskiy gorno-metallurgicheskiy institut, kafedra metallurgii  
blagorodnykh metallov (for Khokhlov, Skobeyev). 3. Irkutskiy  
gorno-metallurgicheskiy institut kafedra obogashcheniya poleznykh  
iskopayemykh (for Bessonov)  
(Precious metals--Metallurgy)

LEONOV, S.B.; KHOKHLOV, V.R.; BESSONOV, S.V.

Cyaniding gold out of flotation concentrates at high pressures.  
Izv.vys. ucheb. zav.; tsvet. met. no.3:94-96 ' 58. (MIRA 11:11)

1. Irkutskiy gornometallurgicheskiy institut. Kafedra metallurgii  
blagorodnykh metallov.  
(Gold--Metallurgy) (Cyanide process)

AUTHORS: Leonov, S.B.,  
Khokhlov, V.R.,  
Bessonov, S.V.

SOV/149-58-4-17/26

TITLE: Elimination of Harmful Effects of Flotation Reagents  
on Concentrate Cyaniding (Ustraneniye vrednogo deystviya  
flotoreagentov pri tsianirovani kontsentrata)

PERIODICAL: Izvestiya Vysshikh Uchebnykh Zavedeniy, Tsvetnaya  
Metallurgiya, 1958, Nr 4, pp 122-123 (USSR)

ABSTRACT: It has been known for some time that slowing down of  
the reaction observed sometimes in cyaniding flotation  
concentrates is not caused by a film of collector  
adhering to the surface of the gold grains but is due  
to froth formation. The present Authors studied this  
effect in the particular case of gold-rich  
concentrates from Taseyev deposits containing 49.7% SiO<sub>2</sub>,  
4.18% Al<sub>2</sub>O<sub>3</sub>, 1.32% CaO, 17.63% S, 16.8% Fe, 1.1% As,  
0.73% Sb, 0.13% Cu and 0.1% Zn. The first series of  
experiments consisted of cyaniding concentrate taken  
Card 1/4 straight from the filter-press and the same



SOV/149-58-4-17/26

Elimination of Harmful Effects of Flotation Reagents on  
Concentrate Cyaniding

concentrate washed three times with water and dried at 150°C. The ratio of the 0.1% NaCN solution containing barium peroxide as the oxidising agent to the concentrate was 2 to 1 and the experiments, carried out in bottles attached to a mechanical mixer, lasted 24 hrs. The values of gold recovery from the washed and untreated concentrate were 88 and 72% respectively. In the next series of experiments the liquor:solid ratio was increased to 3.5:1. Consequently, less froth was formed and under these conditions 95% gold was recovered from both untreated and washed concentrates. Since air bubbles may be broken up and the flotation reagents washed away when water is removed from the concentrate in the filter press, concentrate removed straight from the flotation machine was used in the next series of experiments in which stationary cyaniding vessels were employed. Here again the same gold recovery of 88% was obtained from both washed and untreated samples. However, when

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SOV/149-58-4-17/26

Elimination of Harmful Effects of Flotation Reagents on  
Concentrate Cyaniding

the same experiments were carried out in a laboratory mixer (5 litre capacity) a large quantity of froth was formed when unwashed concentrate was cyanided, with the result that only 72% of gold was recovered from this material as compared with 88% recovered from the washed concentrate. In the last series of experiments the froth formed during cyaniding was continuously broken up by mechanical means. Under these conditions high recovery values (up to 89%) were obtained from both washed and untreated samples. The experimental results confirmed the view that one of the causes of the harmful effect of the flotation reagents during cyaniding is frothing as a result of which some gold (particularly that contained in very fine

Card 3/4

**AUTHORS:** Bessonov, S.V., Leonov, S.B. and Khokhlov, V.R. SOV/149-58-6-10/19  
**TITLE:** Investigation of the Behaviour of Stibnite During Autoclave Cyaniding of [Gold-bearing] Flotation Concentrates  
(Izucheniye povedeniya stibnita pri avtoklavnom tsianirovanii kontsentrata)

**PERIODICAL:** Izvestiya Vysshikh Uchebnykh Zavedeniy, Tavetnaya Metallurgiya, 1958, Nr 6, pp 84 - 91 (USSR)

**ABSTRACT:** The harmful effect of antimony compounds in extraction of gold by the cyanide process has been known since 1900 (Ref 1). The mechanism by which the solubility of gold in cyanide solutions is affected by the presence of various antimony compounds, particularly stibnite ( $Sb_2S_3$ ), has been extensively studied (Refs 2-8) and various methods of counteracting the effect of these compounds have been developed. In some cases, however, no difficulties have been encountered in treating certain types of gold ores (e.g. Transbaykal deposits) containing large proportions of antimony compounds, particularly when autoclave cyaniding was employed (Ref 9) and it was for this reason that the investigation described in the present paper was undertaken. The chemical and mineralogical composition

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SOV/149-58-6-10/19

Investigation of the Behaviour of Stibnite During Autoclave Cyaniding of [Gold-bearing] Flotation Concentrates

of stibnite from the Transbaykal deposits used in the experiments is given in Table 1. In the first stage of the investigation the solubility of  $Sb_2S_3$  (ground to contain 87% particles less than  $47 \mu$  in size) in cyanide solutions was studied. The experiments consisted of placing 100 c.c. of a cyanide solution (0.15% NaCN) in a steel bomb with quantities of  $Sb_2S_3$  calculated to give the Sb content in the concentrate equal to 1, 2 or 3%, the liquid/solid ratio being 3:1. The bomb was then revolved at 112 r.p.m. and the concentration of Sb in the filtrate was determined after 1, 2 and 4 hrs. The results of these experiments are reproduced in Figures 1, 2 and 3. Figure 1 shows the solubility of  $Sb_2S_3$  (in mg/l.) in alkaline cyanide solutions as a function of time (hours) and the concentration of CaO in the solution for the case when the concentrate contained 1% Sb, the concentration of CaO being (1) 0.015%, (2) 0.025% and (3) 0.04% (Curves 1', 2', 3' - atmospheric

Card2/7

SOV/149-58-6-10/19

## Investigation of the Behaviour of Stibnite During Autoclave Cyaniding of [Gold-bearing] Flotation Concentrates

conditions, Curves 1, 2, 3 - autoclave reaction at 5 kg/cm<sup>2</sup> pressure of air). The same relationship for concentrates containing 2 and 3% Sb is shown in Figures 2 and 3, respectively. It is evident that the solubility of Sb<sub>2</sub>S<sub>3</sub> was higher in the autoclave reaction than under atmospheric conditions and that it increased with increasing concentration of Sb in the concentrate and CaO in the solution. Under the same experimental conditions the effect of Sb<sub>2</sub>S<sub>3</sub> on the solubility of gold in cyanide solutions was studied by measuring the loss of weight of a gold foil (3.52 cm<sup>2</sup> surface area) and the concentration of gold in the solution after 1, 2 and 4 hours. It was found that in the presence of stibnite the amount of gold dissolved in the NaCN solution hardly increased with time, and after 4 hours, amounted to 0.425 mg/cm<sup>2</sup>, as compared with 9 mg/cm<sup>2</sup> dissolved after 1 hour in the absence of Sb<sub>2</sub>S<sub>3</sub>. It was also observed that when Sb<sub>2</sub>S<sub>3</sub> was present,

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SOV/149-58-6-10/19

## Investigation of the Behaviour of Stibnite During Autoclave Cyaniding of [Gold-bearing] Flotation Concentrates

a dark film was formed on the surface of the gold specimen and it was established by spectrographic analysis that this surface film contained both antimony and silicon. Since it had been reported that certain constituents of the gangue have a beneficial effect on the solubility of gold in the presence of Sb<sub>2</sub>S<sub>3</sub>, in the next series of experiments the effect of Al<sub>2</sub>O<sub>3</sub> and MgCO<sub>3</sub> additions was examined.

The results are reproduced in Figure 4 showing the quantity of gold (mg/cm<sup>2</sup>) dissolved in the solution as a function of time, the various solutions containing: 1) a quantity of Sb<sub>2</sub>S<sub>3</sub> equivalent to 2% Sb in the concentrate, Al<sub>2</sub>O<sub>3</sub> 7.8%, MgCO<sub>3</sub> 0.97% (percent of the concentrate);

2) as in 1) but no MgCO<sub>3</sub>; 3) as in 1) but no Al<sub>2</sub>O<sub>3</sub>; 4) stibnite only. It was found that in the presence of Al<sub>2</sub>O<sub>3</sub> and MgCO<sub>3</sub> (jointly or separately) the rate of solution of gold was greatly increased and to find an explanation of this effect the ionic composition of the

Card4/7

SOV/149-58-6-10/19

Investigation of the Behaviour of Stibnite During Autoclave Cyaniding  
of [Gold-bearing] Flotation Concentrates

cyanide solutions containing  $\text{Sb}_2\text{S}_3$ ,  $\text{Al}_2\text{O}_3$  and  $\text{MgCO}_3$  in various combinations was studied by the method developed by Illyuviyeva (Ref 10). The results are given in Table 2 showing the concentration (g-equiv/l) of the  $\text{S}^{2-}$  ions in cyanide solutions containing 1.3 g  $\text{Sb}_2\text{S}_3$  alone or in combination with 2.4 g  $\text{Al}_2\text{O}_3$  and/or 0.32 g  $\text{MgCO}_3$ , after 1, 2 and 4 hours' operation. It can be seen that  $\text{S}^{2-}$  concentration in solutions containing  $\text{Sb}_2\text{S}_3$  alone was approx. 15 times higher than in those containing additions of  $\text{Al}_2\text{O}_3$  and  $\text{MgCO}_3$ . It was found also that while the Sb content of the solution containing all these three minerals was 36 mg/l. (after 4 hours), the concentration of Sb in the solution containing  $\text{Sb}_2\text{S}_3$  only was 146 g/l. In conclusion it is stated that: A) when alkaline cyanide solutions are used for treatment of gold-bearing concentrates containing stibnite, the latter is present in the solutions in the form of colloidal, negatively charged particles.

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SOV/149-58-6-10/19

Investigation of the Behaviour of Stibnite During Autoclave  
Cyaniding of [Gold-bearing] Flotation Concentrates

These are gradually adsorbed on the surface of the gold particles and slow down, or even completely prevent, the dissolution of the metal; B) the harmful effect of  $\text{Sb}_2\text{S}_3$  is considerably reduced when  $\text{Al}_2\text{O}_3$  and  $\text{MgCO}_3$  are present in the flotation concentrate. These compounds adsorb the colloidal  $\text{Sb}_2\text{S}_3$  particles as a result of which the possibility of the formation of the surface layer on gold particles is greatly reduced. At the same time conditions are created which are favourable for oxidation of the ions of the "sulphide" sulphur to the sulphate form more suitable for cyaniding. It is possible that the beneficial effect of  $\text{MgCO}_3$  on the rate of solution of gold in the presence of  $\text{Sb}_2\text{S}_3$  consists of promoting coalescence of the colloidal particles of the latter compound; C) the results of the present investigation indicate that gold-bearing ores can be treated by direct application of the cyaniding process if  $\text{Al}_2\text{O}_3$

Card6/7

KHOKHLOV, V.T., elektromekhanik

Difficulties in the servicing of route indicators. Avtom., telem.  
i svyaz' 2 no.11:41 N '58. (MIRA 11:12)

1.Ozherel'yevskaya distantiya signalizatsii i svyazi Moskevsko-  
Kursko-Donbasskey deregi.  
(Railroads--Signaling)

KHOKHLOV, V.V.; PROTOPOPOV, V.N. (deceased); DENISENKO, L.I.; SMIRNOVA,  
Ye.Ia.; TIMONINA, Z.G.

Method of semi-quantitative spectrum analysis for 40-50 elements  
in rocks. Izv. AN SSSR. Ser. fiz. 19 no.1:115-116 Ja-F '55.  
(MIRA 8:9)

1. Vsesoyuznyy nauchno-issledovatel'skiy geologicheskii institut  
(Spectrum analysis) (Spectrometer)

KHOKHLOV V.V.

1228. An increase in the accuracy of the determination of nickel and cobalt in the complete spectral

seventy hundred per cent.

are prepared from natural samples analysed

chemically. C. D. KOPIN

KLER, M.M.; PROTOPOPOV, V.N. [deceased]; DENISENKO, L.I.; SMIRNOVA, Ye.Ya.; TIMONINA, Z.G.; KHOKHLOV, V.V.; FILIPPOVA, B.S., red.izd-va; BYKOVA, V.V., tekhn.red.

[Approximation quantitative spectral analysis of minerals based on 3d-order weakening of the intensity of the spectral lines; concise handbook] Priblizhennyyi kolichestvennyy spektral'nyi analiz mineral'nogo syr'ia, osnovannyi na oslablenii intensivnosti spektral'nykh linii na tri poriadka; kratkoe rukovodstvo. Pod obshchey red. M.M.Klera. Moskva, Gos. nauchno-tekhn.izd-vo lit-ry po geologii i okhrane neдр, 1959. 55 p. 10 charts. (MIRA 12:12)

1. Leningrad. Vsesoyuznyy geologicheskyy institut.  
(Mineralogy) (Spectrum analysis)



KHOKHLOV, V.V.

Possibility for reducing the exposure time in spectrum analysis  
of metallometric samples. Zap. LGI 36 no. 2:115-130 '59.

(MIRA 13:12)

(Ores--Spectra)

KHOKHLOV, V. V.

Cand Geol-Min Sci - (diss) "Accelerated methods of spectral analysis as the basis for the study of distribution of various chemical elements in series of sedimentary rocks. (On the example of a study of ancient sedimentary rocks of the Russian platform)." Leningrad, 1961. 18 pp; (Ministry of Geology and Mineral Resources Conservation USSR, All-Union Scientific Research Geological Inst "VSEGEI"); 250 copies; price not given; (KL, 5-61 sup, 181)

TURSKIY, A.A.; KHOKHLOV, V.V.

Spectral determination of the composition of granites and ilmenite,  
having a small quantity of the initial material. Izv. vys.  
ucheb. zav.; geol. i razv. 4 no.3:131-134 Mr '61.  
(MIRA 14:6)

1. Leningradskiy gornyy institut imeni G.V.Plekhanova.  
(Ilmenite—Spectra) (Granite—Spectra)

KHOKHLOV, V.V.; GRIGOR'YEVA, O.A.; RIVLINA, N.Ya.

Accuracy of the spectrum determination of the content of a series  
of elements in metallometric samples. Zap. LGI 39 no.2:149-162  
'61. (MIRA 15:2)

(Ores--Sampling and estimation)

TARASOV, Konstantin Ivanovich; KHOKHLOV, Vladimir Vladimirovich;  
BERGER, S.I., red.; TELYASHOV, R.Kh., red. 12d-va;  
GVIRTS, V.L., tekhn. red.

[New STE-1 diffraction spectrograph with crossed dispersion  
and its use in spectrum analysis] Novyi difraktsionnyi  
spektrograf so skreshchennoi dispersiei STE-1 i ego spektroana-  
liticheskie vozmozhnosti. Leningrad, 1963. 21 p. (Leningrad-  
skii dom nauchno-tekhnicheskoi propagandy. Obmen peredovym  
opytom. Seriya: Kontrol' kachestva produktsii, no.1)

(MIRA 16:5)

(Spectrograph)

TOLESTIKHINA, M.M.; KHOKHLOV, V. V.

Characteristics of the distribution of some chemical elements in the ancient coarse sedimentary rocks of the Russian Platform. Trudy VSEGEI 91:85-90 '63.

Lower boundary of the Cambrian of the Russian Platform based on the distribution of trace elements in ancient sedimentary rocks. Ibid.:101-106

(MIRA 17:7)

KHOKHLOV, V.V.

Quantitative determination of the principal chemical elements  
in the complete spectrographic analysis of rocks. Zap. LGI  
45 no. 2:81-90 '63.

Accelerated methods of spectrographic analysis in the study  
of the distribution of chemical elements in sedimentary rocks.  
Ibid.:91-106 (MIRA 17:5)

TOLESTIKHINA, M.M.; KHOKHLOV, V.V.

Characteristics of the distribution of some chemical elements in the ancient coarse sedimentary rocks of the Russian Platform. Trudy VSEGEI 91:85-90 '63.

Lower boundary of the Cambrian of the Russian Platform based on the distribution of trace elements in ancient sedimentary rocks. Ibid.:101-106. (MIRA 17:7)



KATCHENKOV, Semen Mikhaylovich; PROKOF'YEV, V.K., prof.,  
retsenzont; KLER, M.M., dots., retsenzont;  
KHOKHLOV, V.V., nauchn. red.; FEDOTOVA, M.I., ved.  
red.; BELIAKOV, M.F., dots., red.

[Spectrum analysis of rocks] Spektral'nyi analiz gor-  
nykh porod. Izd.2., perer. i dop. Leningrad, Nedra,  
1964. 271 p. (MIRA 18:1)

KHOKHLOVA, T. I.

Compound therapy of angioreticuloma of the brain in children.  
Vop. neirokhir. no.1:28-30 '65. (MIRA 18:10)

1. Leningradskiy nauchno-issledovatel'skiy neyrokhirurgicheskiy institut imeni A.I. Polenova (direktor - prof. V.M. Ugryumov).

3-1  
EL'FERIN, I. T.; ANTIPOV, V. V.; GALESHKITS, D. M.; PAVLOVSKIY, L. M.; KROKHLOV, V. Z.

"Study of transfer processes in two-phase systems of suspension type with some properties of phase interaction arrangement."

report submitted for 2nd All-Union Conf on Heat & Mass Transfer, Minsk, 4-12 May 1964.

All-Union Sci Res Inst MM

KHOKHLOV, V.Z.

Surveyors must be familiar with the construction of surveying  
signals. Geod. i kart. no.1:52-53 Ja '61. (MIRA 14:9)  
(Surveying)

1. KHCKHLOV, Ye.
2. USSR (600)
4. Coal
7. Higher quality of coal. M.st. ugl. 1, no. 9, 1952.

9. Monthly List of Russian Accessions, Library of Congress, February 1953. Unclassified.

KHOKHLOV, Ye.

Attachment for mounting KSKh-2,1 mowers on DT-14 tractors.

Tekhsov. MTS 17 no.24:14 D '56.

(MLRA 10:2)

(Mowing machines)

IKHOKHLOV, Ye. A.

112-3-5988

Translation from: Referativnyy Zhurnal, Elektrotehnika, 1957, Nr 3, p. 136 (USSR)

AUTHOR: Khokhlov, Ye. A.

TITLE: Technical Progress of Industrial Electric Rolling Stock (K voprosu tekhnicheskogo progressa elektropodvizhnogo sostava promyshlennogo transporta)

PERIODICAL: In Sbornik: Materialy nauch.-tekhn. soveshchaniya po tyagovomu elektrobudovaniyu, November 1953, Riga, 1955, pp. 139-142.

ABSTRACT: Pointed out are several shortcomings in projecting a new series of industrial electric locomotives, which were proposed in 1949 by the Main Administration of Electric Machinery for Transportation of the Ministry of the Electrotechnical Industry of the USSR. This project provides for the production of electric locomotives only for electrification of railroad lines for open-cut mining; in this connection, not all requirements are fulfilled sufficiently. This series will provide only partial electrification of railroad transportation for metallurgical plants; in many cases, a lack of selection of a required type of electric locomotive will have a negative effect on the economics of electrification of industrial transportation. It is proposed that a project be developed immediately for producing a new series of industrial electric locomotives, on the basis of current

Card 1/2

Technical Progress of Industrial Electric Rolling Stock

demands of industrial transportation. The series should be sufficiently universal and restricted to only a few types (5 or 6 sizes of locomotives and 1 or 2 tenders). (State Design and Planning Institute of the Office for the Planning of Industrial Transportation) I. V. I.

ASSOCIATION: State Design and Planning Institute of the Office for the Planning of Industrial Transportation (GPI Promtransproyekta)

Card 2/2

Electrification of Rail Transport in Iron and Steel Works.  
E. A. Khokhlov. (Sov. 1956, (9), 835-841). [In Russian].  
Existing types of Soviet diesel-electric and electric locomotives  
are considered unsuitable for the fullest use within iron and  
steel works. The locomotive characteristics required for  
the complete electrification of intra-works rail transport  
under various conditions are formulated. — E. A. Khokhlov



KHOKHLOV, Ye.A., inzhener.

Effective type of traction in open pit mine railroads. Gor.zhur.  
no.12:31-33 D '56. (MLRA 10:1)

1. Gosudarstvennyy politekhnicheskiy institut Promtransproyekt.  
(Mine railroads)

**KHOKHLOV, Ye.A., inzm.**

Selecting the kind of traction for railroad traffic at metallurgical  
plants. Bul. TSNIICEM no.3:25-28 '58. (MIRA 11:5)  
(Railroad, Industrial--Locomotives)

STARTSEV, D.; KOLMSNEV, S., zaslushenny deyatel' nauki; BOYEV, V.;  
KHOROKHORIN, D.; SKURIKHIN, I.; KHOKHLOV, Ye.; BUYANOV, I.,  
dvazhdy Geroy Sotsialisticheskogo Truda; TROFIMOV, A.; STEPANOV, N.;  
FEDOTOV, S.

The road toward new achievements. Sots. trud, no.4:14-36 Ap '58,  
(MIRA 11:4)

1. Starshiy ekonomist Tsentral'nogo planovo-ekonomicheskogo upravleniya Ministerstva sel'skogo khozyaystva SSSR (for Startsev).
2. Oshen-korrespondent Vsesoyuznoy akademii sel'skokhozyaystvennykh nauk im. V.I. Lenina (for Kolesnev). 3. Zaveduyushchiy sektorom ekonomicheskogo stimulirovaniya sel'skokhozyaystvennogo proizvodstva Vsesoyuznoy akademii sel'skokhozyaystvennykh nauk im. V.I. Lenina (for Boyev). 4. Zaveduyushchiy sel'skokhozyaystvennym otdelom Moskovskogo komiteta Kommunisticheskoy partii Sovetskogo Soyusa (for Khorokhorin). 5. Zaveduyushchiy kafedroy ekonomiki i organizatsii sel'skokhozyaystvennogo proizvodstva Ivanovskogo sel'skokhozyaystvennogo instituta (for Skurikhin). 6. Machal'nik Spetsial'nogo konstruktorskogo byuro zavoda sel'khoz mashin im. Ukhtomskogo (for Khokhlov). 7. Predsedatel' kolkhosa "Vernyy put'," Ivanovskogo rayona, Ivanovskoy oblasti (for Trofimov). 8. Glavnyy agronom Ramenskoy mashinno-traktornoy stantsii (for Stepanov). 9. Sekretar' partiynoy organizatsii Ramenskoy mashinno-traktornoy stantsii (for Fedotov). 10. Predsedatel' kolkhosa im. Vladimira Il'icha (for Buyanov).

(Machine-tractor stations) (Collective farms)

KHOKHLOV, Yevgeniy Anatol'yevich, inzh.; SOROKIN, Vladimir Ivanovich, inzh.;  
POTAPOV, M.G., otv.red.; KOLOMITSEV, A.D., red.izd-va; BERESLAV-  
SKAYA, L.Sh., tekhn.red.; BOLDYREVA, Z.A., tekhn.red.

[Electric traction in strip mines] Elektricheskaya tiaga na ugol'-  
nykh kar'erakh. Moskva, Gos.nauchno-tekhn.izd-vo lit-ry po gornom  
delu, 1960. 407 p. (MIRA 13:9)

(Mine railroads)

KHOKHLOV, Ye.A., inzh.

Advantages of the use of diesel and electric traction on  
industrial railroads. Zhel.dor.transp. 43 no.8:71-76 Ag '61.  
(Railroads, Industrial) (MIRA 14:8)

KHOKHLOV, Ye.A., inzh.

Electrification of industrial railroads. Zhel. dor. transp. 47  
no.6:81-84 Je '65. (MIRA 18:6)

RZEL # 221

Khlebnikov, P.

to  
Khokhlov, Ye. A.

END